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REMARKS

This response is intended as a full and complete response to the final Office Action mailed December 20, 2004. In the Office Action the Examiner notes that claims 1-27 are pending, of which claims 1-27 stand rejected. By this response, claims 26-27 are cancelled and claims 1-25 continue unamended.

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in allowable form.

Rejections under 35 U.S.C. §103

Claims 1-14, 17 and 19-27

The Examiner has rejected claims 1-14, 17 and 19-27 under 35 U.S.C. §103(a) as being unpatentable over Wang (U.S. Patent 6,675,385, hereinafter "Wang") in view of Legall et al. (U.S. Patent 6,005,565, hereinafter "Legall"). The Applicants respectfully traverse the rejection.

The Applicants' independent claim 1 recites (independent claims 20, 26 and 27 recite similar limitations):

A method for searching a program guide database, comprising:
receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG pages including a search object and a respective portion of IPG imagery;
receiving one or more search criteria via user interaction with said search object;
sending a request for a search along with the one or more search criteria to a head end of an information distribution system;
receiving at least one search result from the service provider equipment; and
wherein the program guide database is searched at the service provider equipment. (emphasis added).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather, the test is whether the

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claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). The combination of Wang and Legall fails to teach or suggest the Applicants' invention as a whole.

Wang discloses

composing a plurality of EPG Web pages in HTML format from said basic EPG data, each of said plurality of EPG Web pages having a respective URL, each of said plurality of EPG Web pages being linked by a cross referenced URL to another of said plurality of EPG Web pages to form an EPG; storing said plurality of EPG Web pages in HTML format at said broadcasting station to form a plurality of stored HTML EPG Web pages; formatting said plurality of stored HTML EPG Web pages into said plurality of MPEG data packets while retaining said HTML format; transmitting said plurality of MPEG data packets in said multiple channel digital television signal over said broadcast communications network; (see Wang, column 10, lines 14-29).

As noted above, the Wang reference merely discloses that a plurality of EPG Web pages in an HTML format are sent from a head-end to a set-top terminal having Web browsing capabilities. Furthermore, the Examiner notes that such EPG data includes an object displayed in connection with IPG imagery, as shown in FIG. 4 of Wang. Nowhere in the Wang reference is there any teaching or suggestion of "each of said IPG pages including a search object and a respective portion of IPG imagery." Rather, the Wang reference merely discloses a plurality of Web pages having an object included therein.

Legall discloses a system 100 that includes a conventional computer system that has a receiver for receiving satellite transmissions of broadcasts and programming information through antenna 106. Using the programming information received through receiver 105, the system 100 can generate an electronic program guide (EPG) on the display 120. The EPG enables a user to manipulate information and resources used and the information displayed including a power search tool. In one embodiment, the power search tool executes a Web browser application that uses a search engine to search the World Wide Web. Alternatively, the window 220 adapts an EPG window to display the result of a broadcast data query. The user can select the information

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sources to be searched, such as the World Wide Web and the electronic program guide information (see Legall, col. 2, lines 7-66). In other words, the power search tool is installed and resides on the user's computer device (i.e., subscriber equipment).

Even if the two references could somehow be operably combined, the combination would merely disclose formatting an EPG into a plurality of Web pages, sending such Web pages from a head-end to a subscriber terminal, where a Web browser residing on the local terminal utilizes a power search tool installed thereon to retrieve such EPG Web pages for display. In other words, the combined references merely disclose how a Web browser having search capabilities (via a search tool) is able to interface with a content provider providing Web pages. In this instance, the Web pages include EPG data that may be searched by the power search tool on the Web browser that is installed at the set-top terminal. By contrast, the Applicants' invention provides that the IPG page having the search criteria object is composed and rendered at a head-end (i.e., provider equipment) and operable to support a search of a program guide database.

Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 U.S.P.Q. 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Applicants' invention solves a problem associated with resource management as between the provider equipment and the subscriber equipment. The Applicants' invention enables minimal computing resources (e.g., processing speed/power, memory, and the like) to be utilized at the STT, while the provider equipment is capable of composing and rendering the IPG page having the search criteria object at the service provider equipment (e.g., head-end). By contrast, the combination of Wang and Legall discloses a computer device having an operating system capable of executing a Web browser, such as Mosaic®, Internet Explorer®, or Netscape® having a search tool, and retrieving Web pages, such as Web pages containing program guide information. Such application programs are very large and require large amounts of memory and processing power at the subscriber equipment to execute the programs.

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The Applicants' invention overcomes this deficiency by providing an IPG having such search capabilities provided at the service provider equipment. The IPG page of the present invention is sent to the STT as streamed information, and does not need to permanently reside at the STT, thereby unnecessarily consuming resources of the STT. Since the combination of Wang and Legall fails to teach, or even suggest, the Applicants' claimed feature of "said IPG page having said search criteria object is composed and rendered at a head-end and operable to support a search of a program guide database," the cited reference fails to teach the Applicants' invention as a whole.

Further, the Examiner has expanded upon the claim language to force the teachings of the prior art to fit the claimed element, and thereby support the conclusion of anticipation. Such action is not permissible. The prior art must be such that a person of ordinary skill in the field of the invention would consider there to be no difference between the claimed invention and the reference disclosure. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed. Cir. 1991) (emphasis added). In other words, the prior art reference must put the claimed invention in the hand of one skilled in the art. In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985).

In particular, the Wang and Legall references disclose the use of using a Web browser at the end user's terminal (i.e., installed at the end user's terminal) to retrieve Web pages from a content source, such as a content source providing program guide information. The Examiner has utilized these two references in combination to impermissibly expand on the claim language to force the teachings of these references to fit the claimed elements of an IPG and a search object that is composed in the IPG at a head-end (by a content provider). Nowhere in the Applicants' invention, as disclosed in the present specification, is there any discussion of an IPG being sent to the set-top terminals via Web pages, nor is there any teaching or suggestion of Web browsers stored on the set-top terminals for accessing such Web pages to retrieve program guide information.

Furthermore, one skilled in the art would consider accessing information on Web pages via a browser stored on a set-top terminal as being different from an interactive

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program guide having a search object being sent from a content provider. The Wang reference provides an elaborate method of converting the electronic program information at the head-end into Web pages, and then sending such Web pages to a set-top terminal having Web browsing capabilities. The Applicants' invention is completely different from the combination of Wang and Legall, since there is no requirement to first convert the EPG data into Web pages, transport the Web pages into an MPEG type stream, transmit the MPEG stream to the set-top terminal having a resident Web browser, and then decoding the received transport stream into Web pages to display the EPG data. Moreover, the Web browser resident at the set-top terminal must also include a search tool to enable searching of information in the Web pages.

By contrast, the Applicants' invention is much simpler than the combined teachings of Wang and Legall, since the Applicants' invention composes program guide pages each having a search object at the head-end prior to transmission to the individual set-top terminals. In other words, there is no conversion from electronic program guide to HTML format, Web pages to an MPEG data stream, and then back to HTML format Web pages for viewing at the set-top terminal. Further, the search object is already included in the IPG pages of the Applicants' invention, as opposed to having to have an independent and separate software package, such as a Web browser installed on the set-top terminal of the end user. Therefore, the combination of Wang and Legall will fail to teach or suggest the Applicants' invention as a whole.

As such, the Applicants submit that independent claims 1 and 20 fully satisfy the requirements under 35 U.S.C. § 103 and are patentable thereunder. Furthermore, dependent claims 2-14, 17, 19, and 21-25 depend directly or indirectly from independent claims 1, 20, 26 and 17 and recite additional limitations thereof. As such and for at least the same reasons discussed above, the Applicants submit that these dependent claims fully satisfy the requirements under 35 U.S.C. § 103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejection of these claims be withdrawn.

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Claims 15 and 16

The Examiner has rejected claims 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Wang in view of Legal and in further view of Leary (U.S. Patent 6,425,133, hereinafter "Leary"). The Applicants respectfully traverse the rejection.

Claims 15 and 16 depend directly or indirectly from independent claim 1 described above, and include all of its limitations. In particular, dependent claim 15 (and similarly dependent claim 16) recites in part:

"A method for searching a program guide database, comprising:
receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG pages including a search object and a respective portion of IPG imagery;

receiving one or more search criteria;
sending a request for a search along with the one or more search criteria to a head end of an information distribution system; and
receiving one or more search results from the head end, and
wherein the program guide database is searched at the head end." (emphasis added).

As discussed above, with respect to Applicants' independent claim 1, Wang fails to teach or suggest "an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG pages including a search object and a respective portion of IPG imagery." Rather, the Wang reference merely discloses sending Web pages having IPG information, including objects, to a set-top terminal having a Web browser to retrieve such Web pages.

Further, Legall discloses that the power search tool executes a Web browser application that uses a search engine to search the World Wide Web. Alternatively, the window 220 adapts an EPG window to display the result of a broadcast data query. The user can select the information sources to be searched, such as the World Wide Web and the electronic program guide information (see Legall, col. 2, lines 7-66). In other words, the power search tool is installed and resides on the user's computer device (i.e., subscriber equipment). Nowhere is there any suggestion in the Legall

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reference to compose and render the IPG page having the search criteria object at a head-end (service provider equipment), as claimed by the Applicants.

The Leary reference and the Examiner's Official Notice fails to bridge the substantial gap as between the Wang and Legall references and the Applicants' invention. Specifically, Leary discloses transmitting data from a head-end to a set-top box on an out-of-band channel (see Leary, col. 2, lines 38-48). The Examiner's Official Notice merely notes that it is well known to compress data to conserve bandwidth. Thus, the combined references merely disclose transmitting an EPG Web page to a set-top terminal from a head-end via an out-of-band channel, and a Web browser having a power search tool installed on the set-top terminal for facilitating searches with respect to the Web pages. Since the combined references fail to teach or suggest the claimed feature of "receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG pages including a search object and a respective portion of IPG imagery," the combined references fail to teach or suggest the Applicants' invention as a whole.

As such, the Applicants submit that dependent claim 15 fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Furthermore, dependent claim 16 recites similar features as recited in dependent claim 15. As such and for at least the same reasons discussed above, the Applicants submit that dependent claim 16 also fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Applicants respectfully request that the rejection of these claims be withdrawn.

Claim 18

The Examiner has rejected claim 18 under 35 U.S.C. §103(a) as being unpatentable over Wang in view of Legall and in further view of Thomas et al. (U.S. Patent 5,666,645, hereinafter "Thomas"). The Applicants respectfully traverse the rejection.

Claim 18 depends indirectly from independent claim 1 described above, and includes all of its limitations. As discussed above with respect to Applicants' claim 1,

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Wang and Legall alone or in combination do not teach, show or suggest the claimed feature of "receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG pages including a search object and a respective portion of IPG imagery."

Rather, the combination of Wang and Legall teach formatting electronic program guide information into Web pages and saving such Web pages to a set-top terminal having a Web browser, which includes a power search tool installed thereon for retrieving such Web pages and performing a search on the EPG data.

Furthermore, the Thomas reference fails to bridge the substantial gap as between the Wang and Legall references and the Applicants' invention. Specifically, Thomas discloses "[t]he text fit process is a two stage process including a non-interactive background process that scans the database for work which needs to be done and interactive processes that scan for marked entries that are indexed and easy to find." (see Thomas, col. 7, lines 27-31). Nowhere in the combined teachings of Wang, Legall and Thomas, is there any teaching or suggestion of the Applicants' claimed feature of "receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG pages including a search object and a respective portion of IPG imagery." Therefore, the combined references fail to teach or suggest the Applicants' invention as a whole.

As such, the Applicants submit that dependent claim 18 fully satisfies the requirements under 35 U.S.C. § 103 and is patentable thereunder. Therefore, the Applicants respectfully request that the rejection be withdrawn.

THE SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

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CONCLUSION

Thus, Applicants submit that none of the claims, presently in the application, are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. or Steven M. Hertzberg at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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Eamon J. Wall
Registration No. 39,414
Attorney for Applicants

MOSER, PATTERSON & SHERIDAN, LLP
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702
Telephone: 732-530-9404
Facsimile: 732-530-9808

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